accompanied by anomalous absorption, receives a negative confirmation in the esters of the fatty acids and benzoic acid, which show neither. Other esters and alcohols show a rough approximation to Drude's formula. In the glasses, the relation between absorption and dispersion is undefined.—Limits of the solid state, by G. Tammann. Ostwald considers it possible that the transition from the liquid to the crystallised state takes place continuously along a Thomson-van-der-Waals isothermal. The author shows that this assumption implies the possibility of four volumes at the same pressure, and that the liquid isothermals may be followed up beyond the point of intersection with the crystal isothermals. This eliminates what Ostwald calls the meta-stable phase of crystallisation.—Contact electricity between metals and liquids, by A. Heydweiller. The author introduced minutely sub-divided metals into a narrow tube containing an electrolyte, and passed a current through the latter. Any contact electrification was then indicated by motion of the particles. He thus tested Coehn's rule, according to which bodies with a higher dielectric constant are positively charged by contact with bodies of a lower dielectric constant. Platinum, gold, tin, and other metals, immersed in various mixtures of water, chloroform, and acetone, show an agreement with Coehn's rule, but not when immersed in alcohol.—Use of a vacuum tube for thermal insulation, by A. Weinhold. In connection with d'Arsonval's claim of having employed the principle of Dewar's double bottle in 1887, the author mentions that he described the same apparatus as long ago as 1881, in the first edition of his "Physikalische Demonstrationen."

The current number of the *Izvestia* of the East Siberian branch of the Russian Geographical Society contains several valuable papers.—M. Prein gives a list of 424 phanerogam plants collected in the west of the northern parts of Lake Baikal, and his list contains several species which are new for this interesting region.—A paper by S. V. Yastremski, on the ancient beliefs of the Yakutes (who belong to the Turkish stem), not only shows that their religion has a good deal in common with the religion of the Mongols, but also reveals traces of a worship of good-willing deities, which worship was practised by so-called "*white shamans*" (the *shaman* is the witch-priest). Traces of this worship, which has been intermingled in recent times with Christianity, are now found in epical poetry and popular songs only, but "white shamans" were known to exist not further than ten years ago. At the present time the "black shamans," or worshippers and conjurers of the bad-willing deities only, are retained.—M. S. Peretolchin gives an account of his ascent of the Munku-Sardyk peak in the Sayans, and describes a small glacier on its southern slope, surrounded by old moraines testifying to its former greater extension. Phanerogams were found up to an altitude of 10,230 feet.—N. A. Witaszewski gives interesting copies of inscriptions on the crags of the Olekma.—All papers are summed up in German.

In the *Journal of Botany* for November and December, Col. H. W. Feilden continues and concludes his list of the "Flowering Plants of Novaya Zemlya," &c., 195 species in all, besides four Vascular Cryptogams.—Mr. E. S. Salmon describes and figures a moss new to the British flora, *Catharinea tenella*, lately found in Kent.—Messrs. H. and J. Groves describe and figure another very interesting addition to the British Cryptogamic flora, *Nitella hyalina*, discovered in Cornwall, one of the most beautiful of the Characeæ, distinguished from other species of the genus by the presence of secondary branchlets.

## SOCIETIES AND ACADEMIES.

### London.

**Royal Society,** November 24.—"On the Condensation Nuclei produced in Gases by the Action of Röntgen Rays, Uranium Rays, Ultra-violet Light, and other Agents." By C. T. R. Wilson.

By means of expansion experiments the degree of supersaturation necessary to cause water to condense on nuclei from various sources was determined. The nuclei produced in air or hydrogen by Röntgen rays or Uranium rays, or by the discharge of electricity from a pointed platinum wire, or by the escape of negative electricity from a zinc plate exposed to ultra-violet light, all require the same expansion ($v_2/v_1 = 1{\cdot}25$, corresponding to a fourfold supersaturation) in order that water may condense on them. In moist air or oxygen exposed to ultra-violet light, nuclei are produced throughout the volume of the gas exposed to the rays; when the radiation is weak, these require as great a degree of supersaturation as the various nuclei above mentioned in order that water may condense on them; but with stronger radiation they appear to grow, and the expansion required to make water condense on them then depends on the intensity of the ultra-violet light, and on the time for which the gas has been exposed to the rays before expansion. With very strong ultra-violet light the growth of the nuclei continues even in unsaturated air till they become visible as a fog. Sunlight produces in air nuclei resembling those produced by weak ultra-violet light. Certain metals in contact with moist air produce nuclei always requiring great supersaturation in order that water may condense on them. This effect is most strongly exhibited by amalgamated zinc, with which comparatively dense fogs may be obtained on expansion.

It was found that the nuclei produced by X-rays or Uranium rays may readily be removed by applying an electric field, showing that the nuclei are identical with the ions to which the conducting power of the gas when exposed to the rays is due. Similar experiments with the nuclei produced by the action of ultra-violet light on moist air, and with those resulting from the presence of metals, showed that such nuclei do not move in an electric field. This is in agreement with the absence of conducting power.

**Royal Microscopical Society,** November 16.—Mr. E. M. Nelson, President, in the chair.—The President read a paper describing a very large and elaborate binocular microscope possessing many original features; it was designed and made some years ago by a friend. The description was illustrated by an excellent photograph of the instrument shown upon the screen.—Mr. Beck exhibited two slides of *Amphipleura pellucida*, mounted by Prof. Hamilton Smith in his high refractive medium; they were shown under $\frac{1}{12}$ achromatic oil immersion objectives of N.A. 1·0, and 1·25, the diatoms under the former showing re-solution very fairly, bur those under the latter were re-solved most satisfactorily.—Mr. Michael called attention to the slides of diatoms mounted in high refractive media, which Mr. Curties had brought for exhibition.—Dr. Hebb said there was a paper contributed by Mr. A. W. Waters, "on Bryozoa from Madeira," of which he gave a short *résumé*. Mr. Michael remarked that a systematic paper such as this would prove of considerable value to those who were studying the subject. Mr. Waters was at the present moment the best English authority on the Bryozoa, and their knowledge of these organisms had been systematised and made available largely by his contributions to the subject and by his skill as a draughtsman.

**Mathematical Society,** December 8.—Lieut.-Colonel Cunningham, R.E., Vice-President, in the chair.—Major Macmahon, R.A., F.R.S., communicated a discovery he had recently made in the theory of compound partitions.—Mr. J. E. Campbell read a paper on simultaneous partial differential equations.—The following papers were communicated in abstract: On hyperplane coordinates, by W. H. Young.—On a theorem allied to Laplace's, by Prof. W. H. Metzler.—Two problems of wave propagation at the surface of an elastic solid, by T. J. Bromwich. The two problems deal with the velocity of propagation of waves in hypothetical elastic solids. An attempt is made to find causes for the discrepancy between the observed velocities of earthquakes and those calculated by theory. The first case considered is that of a thin elastic shell (this case appears to have been solved by Lord Rayleigh, but it has not apparently been thought worthy of publication by him). The author finds that, with the elastic constants given by Prof. Milne as representing the nature of rocks at the surface of the earth, the deduced velocity has a value agreeing much more nearly with observed velocities than the velocity deduced from Lord Rayleigh's paper in the *Proceedings* (vol. xvii.). The second problem solves the hypothetical case of a thin skin fastened to the surface of a solid, the elastic constants of the two materials being supposed different. As might be expected the effect of the skin is not large, and the result only indicates that it is necessary to know the elastic constants at a depth comparable with a wave-length, before we can get a satisfactory comparison between theory and observation. Also by the same author, the influence of gravity on waves in an elastic solid, with especial reference to the earth. The paper contains solutions of three problems which are concerned with the effect of gravity on the velocity of propagation of elastic waves in the earth. The first and second are based on a paper of Lord Rayleigh's (*Proceedings*, vol. xvii.). They show that when the wave-length is short enough for us to consider the earth as bounded by an infinite plane, the effect of gravity must be small. The third deals with the vibrations of an elastic sphere under its own gravity; here the modification appears to be considerable, when we consider the approximate elastic constants of the earth. This case is partly founded upon a paper by Prof. Lamb (*Proceedings*, vol. xiii.) on the vibrations of a sphere. The author finds that the effect of gravity is necessarily null when the order of the harmonic disturbance is zero or unity. For a sphere of the mass, size and gravity of the earth, but with rigidity about that of steel, he finds the gravest free period to be 55 minutes; without gravity the corresponding free period is 66 minutes. If the rigidity is about that of glass, the period is 78 minutes; without gravity, 120 minutes. The solids throughout are supposed to be incompressible in order to avoid the difficulties introduced by gravity. —Lieut.-Colonel Cunningham (Mr. Tucker, *pro tem.*, in the chair) drew attention to the three following exceptionally high numbers:—

$$N_1, N_2 = [2^{213}.(2^{209} \pm 1)^3 \mp (2^{211} \pm 1)^3] = (2^{210} \pm 1)(2^{210} \mp 1)^3$$

$$N_3 = [\{(2^{105} + 1)^4 - 2^{108}.(3.2^{104} + 1)\}^2 + \{(2^{105} + 1)^4 - 2^{212}.(2^{106} + 3)\}^2] = 2.(2^{210} + 1)^4.$$

The *complete factorisation* of the numbers $(2^{210} \pm 1)$ being known (see Lucas's memoir "Sur la Série récurrente de Fermat," Rome, 1879, pp. 9, 10), the three large numbers (N) are also *completely factorisable into their prime factors*. The two $N_1$, $N_2$ are of order $2^{840}$, and therefore contain 253 figures; whilst $N_3$ is of order $2^{811}$, and therefore contains 254 figures. The largest number hitherto *completely factorised* into its prime factors (so far as known to the author) is $(2^{210} + 1)$, which contains 64 figures.

**Geological Society**, December 7.—W. Whitaker, F.R.S., President, in the chair.—The geological structure of the Southern Malverns and of the adjacent district to the west, by Prof. T. T. Groom. The structure of the district is explained on the supposition that the rocks represent the western margin of an old mountain-chain overfolded towards the west; the eastern portion of this range lies faulted down and buried beneath the Permian and Mesozoic of the vale of Gloucester. All the characteristics of a folded chain are present, namely, the profound folds, overfolds, thrust-planes, and transverse faults; and a typical Austönungs-zone is seen to the west.—The Permian conglomerates of the Lower Severn basin, by W. Wickham King. The rocks thus described are the calcareous conglomerates included in the Middle Permian of the Shropshire type, and exposed north of the Abberley and Lickey Hills. Three calcareous horizons occur, interstratified in sandstones or marls, and surmounted by the Permian breccia. It was the opinion of Ramsay and others that the materials of the calcareous horizons and of the Permian breccia had been brought from the Welsh border; but Buckland and Jukes, among others, claimed a southern derivation for those of the Permian breccia, from local hill-ranges to the south. The latter view accords with the fact that the pebbles composing these calcareous horizons, and also the broken fragments constituting the Permian breccias north of the Abberley and Lickey Hills, are coarser in the south-easterly direction, and gradually become finer to the north-west. The fragments embedded in the Middle Permian calcareous bands near the Lickey are chiefly of Archæan rocks; but in all the other districts described there are very few rock-fragments older than Woolhope Limestone. On the other hand, pebbles of dolomitic Wenlock and Carboniferous Limestones are abundant, while Aymestry Limestone, Old Red, Carboniferous, and Lower Permian sandstones occur in greater or less abundance; and all these rocks, except the Carboniferous Limestone, may be seen *in situ* near at hand to the south.

**Entomological Society**, December 7.—Mr. R. Trimen, F.R.S., President, in the chair.—Mr. McLachlan exhibited a series of specimens of the neuropterous genus *Tetracanthagyna*, de Selys, including a pair of a new species from Borneo, which was the largest known of all recent dragon-flies, though it was slightly exceeded in wing-area by the much more slender *Megaloprepus caenulatus*, a common Central-American species. —Mr. A. H. Jones showed about sixty species of Lepidoptera, taken round electric lights at Zermatt in August.—Dr. Dixey exhibited a series of Pierid butterflies from the Neotropical region to show the existence among them of seasonal forms. The President observed that the exhibit was of special interest, as affording the first recorded evidence of the existence of seasonal dimorphism in Neotropical butterflies.—Mr. G. T. Porritt exhibited an extraordinary variety of *Bombyx quercus*, bred in June last by Mr. W. Tunstall, from a larva found near Huddersfield. The specimen was a female of deep chocolate colour, with the band very faintly traced in dark olive.—Dr. Chapman, Mr. Lloyd, and Mr. Nicholson exhibited butterflies taken by them in Norway from June 20 to July 22, during the past summer at latitudes 60° 12′ and 69° 50′.—Papers were contributed by Mr. R. McLachlan, entitled "Considerations on the genus *Tetracanthagyna*"; by Mr. M. Burr, entitled "A List of Rumanian Orthoptera"; and by Mr. J. H. Leech, on "Lepidoptera Heterocera from China, Japan and Corea."

**Zoological Society**, December 13.—Prof. G. B. Howes, F.R.S., Vice-President, in the chair.—A communication was read from Mr. H. H. Brindley, on certain characters of the reproduced appendages in the Arthropoda, particularly in the Blattidæ. It was a continuation of a paper published in the *Proceedings* of the Society for 1897 (p. 903), and contained observations on the process of regeneration of the legs in the Blattidæ.—Mr. W. P. Pycraft read the second part of his contributions to the osteology of birds, which dealt with the Penguins (Impennes). The author found it necessary to divide this order into six genera. Of these *Eudyptula* appeared to represent the least specialised form of the whole group, and probably came nearest to the ancestral stock. The Impennes, as a whole, appeared to be most nearly related to the Tubinares. It did not seem possible to distinguish the skeleton of *Catarractes pachyrhynchus* from that of *C. chrysocome*.—One of the most important features of this paper related to the "secto-pterygoid," which the author described at some length. —Mr. W. L. H. Duckworth read a note, illustrated with lantern slides, on a specimen of a female anthropoid Ape which had been received from the Gaboon early in the present year, and as to which he was unable to decide whether it was a Gorilla or a Chimpanzee.—Mr. J. Stanley Gardiner read a report on the Turbinolid and Oculinoid Corals collected during his recent expedition to the South Pacific. Nine species were treated of in the paper, of which four were described as new. —Mr. L. A. Borradaile read the third instalment of a paper on Crustaceans from the South Pacific.—Dr. G. H. Fowler contributed the seventh of a series of papers on our knowledge of the Plankton of the Faeroe Channel. It dealt with the Station-data of depth, temperature, &c., of the hauls of H.M.S. *Research* in 1896 and 1897, with the chief Protozoa and Medusæ of the collections.

### EDINBURGH.

**Royal Society**, December 5.—The Rev. Prof. Flint in the chair.—The Chairman gave a short opening statement, referring, amongst other things, to the Antarctic Expedition, to the survey of Christmas Island, to the new expedition to Socotra, and to Dr. Traquair's important memoir of the preceding session, and concluding with short biographical notices of recently deceased Fellows.—Prof. Kuenen, in a paper on the miscibility of liquids at different temperatures, pointed out the necessity of taking the vapour into account in the discussion of any case of equilibrium. The mixtures dealt with were chiefly mixtures of hydrocarbons and alcohols. In the case of ethane and ethyl alcohol, the solubility curve was shaped like a perverted 8—the vapour and upper liquid line joining at the higher temperature, the two liquid lines joining at the lower temperature. A few degrees above the lower temperature at which the two liquids began to exist in equilibrium, it was possible, by moderate increase of pressure, to get the liquids to mix completely again. On the other hand, above the higher temperature at which phenol and water began to mix in all proportions, a large increase of pressure caused a separation of the liquids.—Prof. Ewart, in a paper on reversion in birds and mammals, discussed many instances of reversion either to a recent ancestor or to a remote ancestor. The influence of inbreeding as establishing prepotency in one or both of the parents was clearly shown, a prepotent parent or ancestor preventing reversion. Prof. Ewart illustrated his remarks by means of living specimens of pigeons and rabbits, and threw on the screen views of the zebra hybrids with which he had been experimenting for some time. These hybrids showed markings much more like the markings of the Somali zebra than of their Burchell sire; they seemed to be a case of reversion to a very remote ancestor.

### Paris.

**Academy of Sciences**, December 12.—M. Wolf in the chair.—Physical study of the elasticity acquired by muscular tissue in a state of physiological work, by M. A. Chauveau. The experiments cited were all carried out upon the flexor muscles of the fore arm of man, and were so arranged as to eliminate the disturbing influence of the weight of the limb. The elongations in the length of the muscle produced by a given increase of load are compared with the elongations which would be produced in inert substances, and the conclusion is drawn that the law obeyed by the muscle is given by $e = p\,(1 + r)$, where $e$ is the increase or decrease of the force of elasticity which is maintained in a muscle put in statical contraction, $p$ is the charge sustained, and $r$ the muscular contraction.—Influence of metallic armatures upon the properties of mortars, by M. Considère. The use of iron or steel for the interior armature of mortars, although opposed by military engineers, on account of the results of tests made by tension only, is justified by the results of the experiments given.—Observations of the Brooks Comet (October 1898), made at the Observatory of Algiers with the 31·8 cm. equatorial, by MM. Rambaud and Sy.—Observations of the planet DQ (Witt) and the Perrine-Chofardet and Chase comets, made at the Observatory of Toulouse with the Brunner equatorial, by M. Rossard.—Observations, made at Athens, of the Leonid and Bielid swarms, by M. D. Eginitis.—On the examination of the singularities of a function defined by a Taylor's series, by M. Émile Borel.—On systems of partial differential equations reducible to ordinary differential equations, by M. Jules Beudon.—On the determination of the group of numerical equations, by M. Edmond Maillet.—On lines composed of rectilinear parts, by M. D. Gravé.—On the practical synchronising of regulators, by M. L. Lecornu.—On the ratio of the two specific heats of gases, by M. Louis Boltzmann. Remarks on a paper on the same subject by M. Leduc, with especial reference to the ratio found for the new atmospheric gases. The author arrives at the conclusions that the molecule of a perfect gas for which $k = 1\frac{2}{3}$ ought to behave in molecular concussions as a rigid sphere, a condition which is probably only possible for monatomic gases: in a gas for which $k = 1{\cdot}4$, over an extended range of temperature, the molecule behaves like two spheres rigidly joined together, a case probable for diatomic gases only. At high temperatures, even perfect gases ought to show a diminution of $k$. For polyatomic gases this would be evident at ordinary temperatures.—On a curious phenomenon of adherence of metallic filings under the action of the electric current, by M. Thomas Tommasina.—On the arc with alternating currents, by M. A. Blondel.—On the transformation of the carbonate of orthocresol into a homologue of the phthalëin of orthocresol, by M. P. Cazeneuve. The phthalëin is produced by the action of soda lime upon the carbonate.—On the mixed phenyl-ethyl phosphates, by M. Albert Morel.—Chlorination of benzene in presence of aluminium chloride, by MM. A. Mouneyrat and Ch. Pouret. If $AlCl_3$ is present in the proportion of 30 gr. to 1000 gr. of benzene, the latter absorbs a rapid current of chlorine completely at 50° C. Fractional distillation of the product gave 760 gr. of pure $C_6H_5Cl$, together with 450 gr. of dichlorbenzenes. The latter can be obtained readily in quantity by similarly chlorinating monochlorbenzene, the para compound predominating.—Action of oxidising agents upon some nitrogen compounds, by M. Œchsner de Coninck. A study of the reaction between chromic acid and potassium bichromate and numerous nitrogen compounds, including hydroxylamine, hydrazines, ureas, and amides.—Action of the bacillus *Coli communis* and the Eberth bacillus upon nitrates, by M. L. Grimbert. The nitrogen evolved by the action of these bacilli upon a nitrated medium, is always at least double that corresponding to the nitrate taken; hence the nitrogen evolved cannot arise exclusively from the nitrates, but must come in part from the amido-compounds always present in the culture.—The assimilation of nitric nitrogen and of ammoniacal nitrogen by the higher plants, by M. Mazé. Details of experiments are given which confirm the conclusions of M. Müntz, that ammonia, as such, can be absorbed and assimilated by plants.—On the natural dissemination of wine yeasts, by M. Léon Boutroux. Remarks on a paper by M. J. A. Cordier. In opposition to the latter, the author holds that the theory of dissemination by insects is more in accord with facts than the theory of air dissemination.—The juice of fungi as a vaccine against snake poison, by M. C. Phisalix.—The endomorphic modifications of the gabbro of Pallet (Loire-Inférieure), by M. A. Lacroix.—On the part played by subterranean deposition in the constitution of the soil of a portion of the department of Orne, by M. Stanislas Meunier.

---

## BOOKS and SERIALS RECEIVED.

Books.—The Gold-Fields of Australasia: K. Schmeisser and K. Vogelsang, translated by Prof. H. Louis (Macmillan).—The Micro-organism of Faulty Rum: V. H. and L. J. Veley (Frowde).—Twenty-seventh Annual Report of the Local Government Board: Supplement containing the Report of the Medical Officer for 1897–98 (London).—Annuaire de l'Observatoire Municipal de Paris, 1899 (Paris, Gauthier-Villars).—Les Recettes du Distillateur: E. Fierz (Paris, Gauthier-Villars).—Ostwald's Klassiker der Exakten Wissenschaften, Nr. 97 to 100 (Leipzig. Engelmann).—Congrès National d'Hygiène et de Climatologie Médicale de la Belgique et de Congo, première partie. Belgique (Bruxelles, Hayez).—Recent Advances in Astronomy: Dr. A. H. Fison (Blackie).—University College, London, Calendar for Session 1898–9 (Taylor).

Serials.—Engineering Magazine, December (222 Strand).—Bulletin de l'Académie Royale des Sciences, &c., de Belgique, 1898, Nos. 9 and 10 (Bruxelles).—Observatory, December, and Companion (Taylor).—National Geographic Magazine, November (Washington).—Notes from the Leyden Museum, April and January (Leiden).—Atlantic Monthly, December (Gay).—Journal of the Anthropological Institute, August and November (Paul).—Journal of the Marine Biological Association, November (Plymouth).—An Account of the Crustacea of Norway, Vol. 2, Parts xi., xii. (Bergen).—American Journal of Science December (New Haven).—Morphologisches Jahrbuch, 26 Band, 3 and 4 Heft (Leipzig).—Quarterly Journal of Microscopical Science, November (Churchill).—Memoirs and Proceedings of the Manchester Literary and Philosophical Society, Vol. 42, Part 5 (Manchester).

---

## CONTENTS.

PAGE

**Gegenbaur's Comparative Anatomy of the Vertebrata. By Dr. H. Gadow, F.R.S.** . . . . . . . . 169
**Elementary Quantitative Analysis. By W. A. S.** 172

**Our Book Shelf:—**

"The Illustrated Annual of Microscopy."—**J. E. B.** 173
Bartlett: "Wild Animals in Captivity."—**R. L.** . . 173
Kearton: "Wild Life at Home. How to Study and Photograph it" . . . . . . . . . . . . . . . 174
Houston: "A Pocket Dictionary of Electrical Words, Terms and Phrases" . . . . . . . . . . . . . 174
Ghersi: "Ricettario Industriale" . . . . . . . . . 174
Sydow: "Deutscher Botaniker-Kalender für 1899". 174

**Letters to the Editor:—**

The Anthropological Expedition to Torres Straits.—**Prof. A. C. Haddon** . . . . . . . . . . . . 174
Transference of Heat in Cooled Metals.—**Carl Kinsley** . . . . . . . . . . . . . . . . . . 174
Where do we stand in Brückner's Weather Cycle? (*With Diagram.*)—**Alex. B. MacDowall** . . . . 175
Soakage into Glazed Porcelain.—**F. G.** . . . . . . . 175
The Twelfth Movement of the Earth.—**Prof. J. P. O'Reilly** . . . . . . . . . . . . . . . . . . 176
The Geminid Meteors.—**W. E. Besley** . . . . . . 176
Slug following a Closed Trail.—**Vincent Daniel** . . 177
Animals Feeding on Poisonous Plants as Food.—**Chas. A. Silberrad** . . . . . . . . . . . . 177
**The Fumigation of Trees.** (*Illustrated.*) By **W. F. K.** 177
**Curiosities of Orchid Breeding. By C. C. Hurst** . 178
**The Meetings of the British and French Associations in 1899** . . . . . . . . . . . . . . . . 181
**Notes** . . . . . . . . . . . . . . . . . . . . 181

**Our Astronomical Column:—**

A Total Eclipse of the Moon . . . . . . . . . . 185
Comet Chase . . . . . . . . . . . . . . . . . . 185
Comets *i* 1898 and 1881 IV. . . . . . . . . . . 185
Ephemeris of Planet 1898 DQ . . . . . . . . . . 186
The Companion to the *Observatory* for 1899 . . . . 186
The Solar Disc during 1897 . . . . . . . . . . 186
The Melbourne Observatory . . . . . . . . . . 186
**The Relation of the Toxin and Anti-Toxin of Snake Venom. By W. D. H.** . . . . . . . . . . . 186
**Remarkable Effect of the Indian Earthquake of June 12, 1897.** (*Illustrated.*) . . . . . . . . . . 187
**British Association.** Conference of the Delegates of the Corresponding Societies . . . . . . . . . . 187
**University and Educational Intelligence** . . . . . 188
**Scientific Serials** . . . . . . . . . . . . . . 189
**Societies and Academies** . . . . . . . . . . . 190
**Books and Serials Received** . . . . . . . . . . 192